

## Abstract

The present invention is directed to methods, compositions, kits and devices for making a nucleic acid having selected affinity to a target molecule. One embodiment of the present invention is a method of making a replicatable nucleic acid template having a selected affinity to a target. The method comprises the step of applying a selection to a first generation comprising at least one replicatable nucleic acid template as the replicatable nucleic acid template is replicated by a nucleic acid polymerase to form at least one subsequent generation comprising a replicatable nucleic acid template. The selection is based on the affinity of the replicatable nucleic template of different generations to the target. The nucleic acid polymerase introduces genetic variability between generations of the replicatable nucleic acid template to produce replicatable nucleic acid templates having different affinities to the target. The replicatable nucleic acid templates are separated on the basis of the affinity of the replicatable nucleic acid template to the target.